

Summary Page

Name of Facility Imerys Clays, Inc. - Deepstep Road Plant

NPDES Permit No. GA0002135

This permit is a major modification of an NPDES permit for Imerys Clays, Inc. This facility is a kaolin mining and processing facility that discharges a maximum of 13.6 MGD of process wastewater commingled with stormwater. This facility discharges to unnamed tributaries to Keg Creek in the Oconee River Basin. The permit expires on December 31, 2022.

The permit was placed on public notice from November 15, 2021 to December 15, 2021.

Please Note The Following Changes to the Proposed NPDES Permit From The Existing Permit

Part I.A.1. – Effluent Limitations and Monitoring Requirements

- ☐ Modified effluent limitations for cadmium in accordance with the change to the Georgia water quality standards.
- ☐ Modified the compliance schedule for selenium to provide an extension of the schedule until December 31, 2025.

Standard Conditions & Boilerplate Modifications

The permit boilerplate includes modified language or added language consistent with other NPDES permits.

Final Permit Determinations and Public Comments

- ☐ Final issued permit did not change from the draft permit placed on public notice.
- ☒ Public comments were received during public notice period.
- ☐ Public hearing was held.
- ☒ Final permit includes changes from the draft permit placed on public notice. See attached permit revisions and/or permit fact sheet revisions document(s)

**Public Comments and EPD Responses on Draft NPDES Permit
Imerys Clays, Inc. – Permit No. GA0002135**

COMMENT RECEIVED	EPD RESPONSE
Commenter noted a typographical error in Part I.A.1.b.: the outfall is labeled as 002 but should be labeled as 001.	This typographical error has been corrected in the proposed permit.
Commenter noted a typographical error in Part III.B.1.b.(ii) and Part III.B.1.c.: references made to Part I A.1.c., A.2.c., and A.3.c. should be replaced with A.1.b., A.2.b., and A.3.b.	This typographical error has been corrected in the proposed permit.
Commenter noted that outfall 003 is not referenced in Section 1.10. or Section 3.1 of the fact sheet.	Outfall 003 has been added to Section 1.10.3. and Section 3.1 of the proposed permit fact sheet.
Commenter noted that there are not references to copper, zinc, and selenium in Section 4.1. of the fact sheet.	Only the effluent limitations which are being modified were included in this section of the fact sheet, to provide background for the change to the effluent limitations. Therefore, cadmium is the only parameter listed.
Commenter noted a typographical error in Section 5 of the fact sheet: “enforcement” should be corrected to “enforcement”	This typographical error has been corrected in the proposed permit.

Revisions to Draft Permit

Name of Facility Imerys Clays, Inc. – Deepstep Road Plant

NPDES Permit No. GA0002135

Were there any revisions between the draft proposed NPDES permit placed on public notice and the final proposed NPDES permit? If yes, specify: ☒ Yes ☐ No

Part I.A.1.b

- Corrected typographical error from “outfall 002” to “outfall 001”

Part III.B.1.

- Corrected typographical error in Part III.B.1.b.(ii) and Part III.B.1.c from “A.1.c., A.2.c., and A.3.c.” to “A.1.b., A.2.b., and A.3.b.”

The permittee has been made aware of these changes.

Revisions to Draft Fact Sheet

Name of Facility Imerys Clays, Inc. – Deepstep Road Plant

NPDES Permit No. GA0002135

Were there any revisions between the draft proposed NPDES permit placed on public notice and the final proposed NPDES permit? If yes, specify: ☒ Yes ☐ No

Section 1.10

- Revised to add reference to outfall 003

Section 3.1.

- Revised to add reference to outfall 003

Section 5

- Corrected typographical error from “9enforcement” to “enforcement”

The permittee has been made aware of these changes.



Richard E. Dunn, Director

EPD Director's Office

2 Martin Luther King, Jr. Drive
Suite 1456, East Tower
Atlanta, Georgia 30334
404-656-4713

12/17/2021

Mr. Erik Orr
Imerys Clays, Inc.
618 Kaolin Road
Sandersville, GA 31082

RE: Permit Issuance
Imerys Clays, Inc. - Deepstep Road Plant
NPDES Permit GA0002135
Washington County, Oconee River Basin

Dear Mr. Orr:

Pursuant to the Georgia Water Quality Control Act, as amended, the Federal Clean Water Act, as amended, and the Rules and Regulations promulgated thereunder, we have issued the attached permit for the above-referenced facility.

Your facility has been assigned to the following EPD office for reporting and compliance. Signed copies of all required reports shall be submitted to the following address:

Environmental Protection Division
Watershed Compliance Program
2 MLK Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

Please be advised that on and after the effective date indicated in the permit, the permittee must comply with all terms, conditions, and limitations of the permit. If you have questions concerning this correspondence, please contact Whitney Fenwick at (470) 607-3078 or Whitney.Fenwick@dnr.ga.gov.

Sincerely,

Richard E. Dunn
Director

RED:wrf

Enclosure(s)

CC: EPD Watershed Compliance Program – Sarita Banjade (e-mail)
EPD Watershed Compliance Program – Shiva Hemati (e-mail)
EPD Watershed Planning and Monitoring Program, Mr. Josh Welte (e-mail)
EPD Watershed Planning and Monitoring Program, Mr. Tyler Parsons (e-mail)



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

National Pollutant Discharge Elimination System Permit

In accordance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Imerys Clays Inc.
618 Kaolin Road
Sandersville, Georgia 31082

is issued a permit to discharge from a facility located at

Imerys Clays Inc., Deepstep Road Plant
4062 Deepstep Road
Sandersville, Georgia 31082
Washington County

to receiving waters

Unnamed tributaries to Keg Creek (001, 002, 003) in the Oconee River Basin.

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit.

This permit is issued in reliance upon the permit application signed on November 8, 2021, any other applications upon which this permit is based, supporting data entered therein or attached thereto, and any subsequent submittal of supporting data.

This is a modification of the permit originally issued on December 11, 2017 and effective on January 1, 2018. This permit modification shall become effective on January 1, 2022.

This permit and the authorization to discharge shall expire at midnight December 31, 2022.



Richard E. Dunn, Director
Environmental Protection Division

PART I

A.1. Effluent Limitations and Monitoring Requirements

- a. Upon the effective date of the permit and continuing until December 31, 2025, the permittee is authorized to discharge from outfall number 001¹ (33.023057, -82.898272) – process wastewater commingled with stormwater.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements ²		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Instant	Final Effluent
Total Suspended Solids	--	--	25	45	2/Month	Grab	Final Effluent
Oil & Grease	--	--	10	15	2/Month	Grab	Final Effluent
Turbidity (NTU)	--	--	50	75	2/Month	Grab	Final Effluent
Total Phosphorus	--	--	Report	Report	2/Month	Grab	Final Effluent
Cadmium, Total	Report	Report	Report	Report	2/Month	Grab	Final Effluent
Copper, Total	0.067	0.89	0.010	0.013	2/Month	Grab	Final Effluent
Selenium, Total	Report ³	Report ³	Report ³	Report ³	2/Month	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored twice per month by grab sample.

¹ There shall be no discharge of floating solids or visible foam other than trace amounts.

² All the parameters must be monitored, at a minimum, at the measurement frequency stated above if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

³ See Schedule of Compliance Part III B.1.

- b. Effective on December 31, 2025, the permittee is authorized to discharge from outfall number 001¹ (33.023057, -82.898272) – process wastewater commingled with stormwater

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements ²		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Instant	Final Effluent
Total Suspended Solids	--	--	25	45	2/Month	Grab	Final Effluent
Oil & Grease	--	--	10	15	2/Month	Grab	Final Effluent
Turbidity (NTU)	--	--	50	75	2/Month	Grab	Final Effluent
Total Phosphorus	--	--	Report	Report	2/Month	Grab	Final Effluent
Cadmium, Total	Report	Report	Report	Report	2/Month	Grab	Final Effluent
Copper, Total	0.067	0.89	0.010	0.013	2/Month	Grab	Final Effluent
Selenium, Total	0.34	0.50	0.0050	0.0075	2/Month	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored twice per month by grab sample.

- ¹ There shall be no discharge of floating solids or visible foam other than trace amounts.
- ² All the parameters must be monitored, at a minimum, at the measurement frequency stated above if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

A.2. Effluent Limitations and Monitoring Requirements

- a. Upon the effective date of the permit and continuing until December 31, 2025, the permittee is authorized to discharge from outfall number 002¹ (33.035448, -82.900923) – process wastewater commingled with stormwater.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements ²		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Instant	Final Effluent
Total Suspended Solids	--	--	25	45	2/Month	Grab	Final Effluent
Oil & Grease	--	--	10	15	2/Month	Grab	Final Effluent
Turbidity (NTU)	--	--	Report	Report	2/Month	Grab	Final Effluent
Total Phosphorus	--	--	Report	Report	2/Month	Grab	Final Effluent
Cadmium, Total	Report	Report	Report	Report	2/Month	Grab	Final Effluent
Copper, Total	0.77	1.02	0.0095	0.013	2/Month	Grab	Final Effluent
Selenium, Total	Report ³	Report ³	Report ³	Report ³	2/Month	Grab	Final Effluent
Chronic Whole Effluent Toxicity ⁴	--	--	Report	Report	1/Quarter	24-Hour Composite	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored twice per month by grab sample.

- ¹ There shall be no discharge of floating solids or visible foam other than trace amounts.
- ² All the parameters must be monitored, at a minimum, at the measurement frequency stated above if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.
- ³ See Schedule of Compliance Part III B.1.
- ⁴ WET testing shall be conducted quarterly and the results submitted to the EPD quarterly in accordance with Part I.D of this permit. The testing must comply with the most current U.S. Environmental Protection Agency (EPA) chronic aquatic toxicity testing manuals. The referenced

document is entitled Short-Term Methods of Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th Edition, U.S. EPA, 821-R-02-013, October 2002. Definitive tests must be run on the same samples concurrently using both an invertebrate species (i.e., *Ceriodaphnia dubia*) and a vertebrate species (i.e., Fathead Minnow, *Pimephales promelas*) and shall include a dilution equal to the facility's instream waste concentration (IWC) of 99%.

- b. Effective on December 31, 2025, the permittee is authorized to discharge from outfall number 002¹ (33.035448, -82.900923) – process wastewater commingled with stormwater

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements ²		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Instant	Final Effluent
Total Suspended Solids	--	--	25	45	2/Month	Grab	Final Effluent
Oil & Grease	--	--	10	15	2/Month	Grab	Final Effluent
Turbidity (NTU)	--	--	Report	Report	2/Month	Grab	Final Effluent
Total Phosphorus	--	--	Report	Report	2/Month	Grab	Final Effluent
Cadmium, Total	Report	Report	Report	Report	2/Month	Grab	Final Effluent
Copper, Total	0.77	1.02	0.0095	0.013	2/Month	Grab	Final Effluent
Selenium, Total	0.40	0.61	0.0050	0.0075	2/Month	Grab	Final Effluent
Chronic Whole Effluent Toxicity ³	--	--	Report	Report	1/Quarter	24-Hour Composite	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored twice per month by grab sample.

- ¹ There shall be no discharge of floating solids or visible foam other than trace amounts.
- ² All the parameters must be monitored, at a minimum, at the measurement frequency stated above if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.
- ³ WET testing shall be conducted quarterly and the results submitted to the EPD quarterly in accordance with Part I.D of this permit. The testing must comply with the most current U.S. Environmental Protection Agency (EPA) chronic aquatic toxicity testing manuals. The referenced document is entitled Short-Term Methods of Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th Edition, U.S. EPA, 821-R-02-013, October 2002. Definitive tests must be run on the same samples concurrently using both an invertebrate species

(i.e., *Ceriodaphnia dubia*) and a vertebrate species (i.e., Fathead Minnow, *Pimephales promelas*) and shall include a dilution equal to the facility's instream waste concentration (IWC) of 99%.

A.3. Effluent Limitations and Monitoring Requirements

- a. Upon the effective date of the permit and continuing until December 31, 2025, the permittee is authorized to discharge from outfall number 003¹ (33.033775, -82.885645) – process wastewater commingled with stormwater.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements ²		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Instant	Final Effluent
Total Suspended Solids	--	--	25	45	2/Month	Grab	Final Effluent
Oil & Grease	--	--	10	15	2/Month	Grab	Final Effluent
Turbidity (NTU)	--	--	Report	Report	2/Month	Grab	Final Effluent
Total Phosphorus	--	--	Report	Report	2/Month	Grab	Final Effluent
Cadmium, Total	Report	Report	Report	Report	2/Month	Grab	Final Effluent
Copper, Total	0.14	0.14	0.014	0.014	2/Month	Grab	Final Effluent
Zinc, Total	1.8	1.8	0.18	0.18	2/Month	Grab	Final Effluent
Selenium, Total	Report ³	Report ³	Report ³	Report ³	2/Month	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored twice per month by grab sample.

¹ There shall be no discharge of floating solids or visible foam other than trace amounts.

² All the parameters must be monitored, at a minimum, at the measurement frequency stated above if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

³ See Schedule of Compliance Part III B.1.

- b. Effective on December 31, 2025, the permittee is authorized to discharge from outfall number 003¹ (33.033775, -82.885645) – process wastewater commingled with stormwater

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations				Monitoring Requirements ²		
	Mass Based (lbs/day)		Concentration Based (mg/L)		Measurement Frequency	Sample Type	Sample Location
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.			
Flow (MGD)	Report	Report	--	--	2/Month	Instant	Final Effluent
Total Suspended Solids	--	--	25	45	2/Month	Grab	Final Effluent
Oil & Grease	--	--	10	15	2/Month	Grab	Final Effluent
Turbidity (NTU)	--	--	Report	Report	2/Month	Grab	Final Effluent
Total Phosphorus	--	--	Report	Report	2/Month	Grab	Final Effluent
Cadmium, Total	Report	Report	Report	Report	2/Month	Grab	Final Effluent
Copper, Total	0.14	0.14	0.014	0.014	2/Month	Grab	Final Effluent
Zinc, Total	1.8	1.8	0.18	0.18	2/Month	Grab	Final Effluent
Selenium, Total	0.051	0.077	0.0050	0.0075	2/Month	Grab	Final Effluent

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored twice per month by grab sample.

¹ There shall be no discharge of floating solids or visible foam other than trace amounts.

² All the parameters must be monitored, at a minimum, at the measurement frequency stated above if there is any discharge. If there is no discharge, state such in the discharge monitoring report in accordance with the reporting requirements in Part 1.D of this permit.

B. Monitoring

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. The permittee shall maintain a written sampling plan and schedule onsite.

2. Sampling Period

- a. Unless otherwise specified in this permit, quarterly samples shall be taken during the periods January-March, April-June, July-September, and October-December.
- b. Unless otherwise specified in this permit, semiannual samples shall be taken during the periods January-June and July-December.
- c. Unless otherwise specified in this permit, annual samples shall be taken during the period of January-December.

3. Monitoring Procedures

Analytical methods, sample containers, sample preservation techniques, and sample holding times must be consistent with the techniques and methods listed in 40 CFR Part 136. The analytical method used shall be sufficiently sensitive. EPA-approved methods must be applicable to the concentration ranges of the NPDES permit samples.

4. Detection Limits

All parameters will be analyzed using the appropriate detection limits. If the results for a given sample are such that a parameter is not detected at or above the specified detection limit, a value of "NOT DETECTED" will be reported for that sample and the detection limit will also be reported.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling or measurements, and the person(s) performing the sampling or the measurements;
- b. The dates and times the analyses were performed, and the person(s) performing the analyses;
- c. The analytical techniques or methods used;
- d. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased monitoring frequency shall also be indicated. EPD may require, by written notification, more frequent monitoring or the monitoring of other pollutants not required in this permit.

7. Records Retention

The permittee shall retain records of all monitoring information, including all records of analyses performed, calibration and maintenance of instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a minimum of three (3) years from the date of the sample, measurement, report or application, or longer if requested by EPD.

8. Penalties

The Federal Clean Water Act and the Georgia Water Quality Control Act provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director of EPD

C. Definitions

1. The "daily average" mass means the total discharge by mass during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.
2. The "daily maximum" mass means the total discharge by mass during any calendar day.
3. The "daily average" concentration means the arithmetic average of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample.
4. The "daily maximum" concentration means the daily determination of concentration for any calendar day.
5. A "calendar day" is defined as any consecutive 24-hour period.
6. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
7. "Severe property damage" means substantial physical damage to property, damage to treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
8. "EPD" as used herein means the Environmental Protection Division of the Department of Natural Resources.
9. "State Act" as used herein means the Georgia Water Quality Control Act (Official Code of Georgia Annotated; Title 12, Chapter 5, Article 2).
10. "Rules" as used herein means the Georgia Rules and Regulations for Water Quality Control.

D. Reporting Requirements

1. The permittee must electronically report the DMR, OMR and additional monitoring data using the web based electronic NetDMR reporting system, unless a waiver is granted by EPD.
 - a. The permittee must comply with the Federal National Pollutant Discharge Elimination System Electronic Reporting regulations in 40 CFR §127. The permittee must electronically report the DMR, OMR, and additional monitoring data using the web based electronic NetDMR reporting system online at: <https://netdmr.epa.gov/netdmr/public/home.htm>
 - b. Monitoring results obtained during the calendar month shall be summarized for each month and reported on the DMR. The results of each sampling event shall be reported on the OMR and submitted as an attachment to the DMR.
 - c. The permittee shall submit the DMR, OMR and additional monitoring data no later than 11:59 p.m. on the 15th day of the month following the sampling period.
 - d. All other reports required herein, unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.
2. No later than December 21, 2020, the permittee must electronically report the following compliance monitoring data and reports using the online web based electronic system approved by EPD, unless a waiver is granted by EPD:
 - a. Sewer Overflow/Bypass Event Reports;
 - b. Noncompliance Notification;
 - c. Other noncompliance; and
 - d. Bypass

3. Other Reports

All other reports required in this permit not listed above in Part I.D.2 or unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

4. Other Noncompliance

All instances of noncompliance not reported under Part I.B. and Part II. A. shall be reported to EPD at the time the monitoring report is submitted.

5. Signatory Requirements

All reports, certifications, data or information submitted in compliance with this permit or requested by EPD must be signed and certified as follows:

- a. Any State or NPDES Permit Application form submitted to the EPD shall be signed as follows in accordance with the Federal Regulations, 40 C.F.R. 122.22:
 1. For a corporation, by a responsible corporate officer. A responsible corporate officer means:
 - i a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or
 - ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
 3. For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.
- b. All other reports or requests for information required by the permit issuing authority shall be signed by a person designated in (a) above or a duly authorized representative of such person, if:
 1. The representative so authorized is responsible for the overall operation of the facility from which the discharge originates, e.g., a plant manager, superintendent or person of equivalent responsibility;
 2. The authorization is made in writing by the person designated under (a) above; and
 3. The written authorization is submitted to the Director.
- c. Any changes in written authorization submitted to the permitting authority under (b) above which occur after the issuance of a permit shall be reported to the permitting authority by submitting a copy of a new written authorization which meets the requirements of (b) and (b.1) and (b.2) above.
- d. Any person signing any document under (a) or (b) above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

PART II

A. Management Requirements

1. Notification of Changes

- a. The permittee shall provide EPD at least 90 days advance notice of any planned physical alterations or additions to the permitted facility that meet the following criteria:
 1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b);
 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1); or
 3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. The permittee shall give at least 90 days advance notice to EPD of any planned changes to the permitted facility or activity which may result in noncompliance with permit requirements.
- c. Following the notice in paragraph a. or b. of this condition the permit may be modified. The permittee shall not make any changes, or conduct any activities, requiring notification in paragraph a. or b. of this condition without approval from EPD.
- d. The permittee shall provide at least 30 days advance notice to EPD of:
 1. any planned expansion or increase in production capacity; or
 2. any planned installation of new equipment or modification of existing processes that could increase the quantity of pollutants discharged or result in the discharge of pollutants that were not being discharged prior to the planned change

if such change was not identified in the permit application(s) upon which this permit is based and for which notice was not submitted under paragraphs a. or b. of this condition.

- e. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 100 µg/L, (ii) five times the maximum concentration reported for that pollutant in the permit application, or (iii) 200 µg/L for acrolein and acrylonitrile, 500 µg/L for 2,4 dinitrophenol and for 2-methyl-4-6-dinitrophenol, or 1 mg/L antimony.
- f. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in any discharge on a nonroutine or infrequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 500 µg/L, (ii) ten times the maximum concentration reported for that pollutant in the permit application, or (iii) 1 mg/L antimony.
- g. Upon the effective date of this permit, the permittee shall submit to EPD an annual certification in June of each year certifying whether or not there has been any change in processes or wastewater characteristics as described in the submitted NPDES permit application that required notification in paragraph a., b., or d. of this condition. The permittee shall also certify annually in June whether the facility has received offsite wastes or wastewater and detail any such occurrences.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide EPD with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

- a. A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

3. Facility Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

- a. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to EPD at least 10 days (if possible) before the date of the bypass. The permittee shall submit notice of any unanticipated bypass with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:
 1. A description of the discharge and cause of noncompliance; and
 2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.
- b. Any diversion or bypass of facilities covered by this permit is prohibited, except (i) where unavoidable to prevent loss of life, personal injury, or severe property damage; (ii) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if the permittee could have installed adequate back-up equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and (iii) the permittee submitted a notice as required above. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. Upon written notification by EPD, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

6. Sludge Disposal Requirements

Sludge shall be disposed of in accordance with the regulations and guidelines established by EPD, the Federal Clean Water Act, and the Resource Conservation and Recovery Act (RCRA). Prior to disposal of sludge by any method other than co-disposal in a permitted sanitary landfill, the permittee shall submit a sludge management plan to the Watershed Protection Branch of EPD for written approval. For land application of nonhazardous sludge, the permittee shall comply with the applicable criteria outlined in the most current version of EPD's "Guidelines for Land Application of Sewage Sludge (Biosolids) at Agronomic Rates" and with the State Rules, Chapter 391-3-6-.17. EPD may require more stringent control of this activity. Prior to land applying nonhazardous sludge, the permittee shall

submit a sludge management plan to EPD for review and approval. Upon approval, the plan for land application will become a part of the NPDES permit upon modification of the permit.

7. Sludge Monitoring Requirements

The permittee shall develop and implement procedures to ensure adequate year-round sludge disposal. The permittee shall monitor the volume and concentration of solids removed from the plant. Records shall be maintained which document the quantity of solids removed from the plant. The ultimate disposal of solids shall be reported (in the unit of lbs) as specified in Part I.D of this permit.

8. Power Failures

Upon the reduction, loss, or failure of the primary source of power to said water pollution control facilities, the permittee shall use an alternative source of power if available to reduce or otherwise control production and/or all discharges in order to maintain compliance with the effluent limitations and prohibitions of this permit.

If such alternative power source is not in existence, and no date for its implementation appears in Part I, the permittee shall halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

9. Operator Certification Requirements

The permittee shall ensure that, when required, a certified operator is in charge of the facility in accordance with Georgia State Board of Examiners for Certification of Water and Wastewater Treatment Plant operators And Laboratory Analysts Rule 43-51-6.(b)

10. Laboratory Analyst Certification Requirements

The permittee shall ensure that, when required, the person in responsible charge of the laboratory performing the analyses for determining permit compliance is certified in accordance with the Georgia Certification of Water and Wastewater Treatment Plant operators and Laboratory Analysts Act, as amended, and the Rules promulgated thereunder.

B. Responsibilities

1. Right of Entry

The permittee shall allow the Director of EPD, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

- a. To enter upon the permittee's premises where a discharge source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and to sample any substance or parameters in any location.

2. Transfer of Ownership or Control

A permit may be transferred to another person by a permittee if:

- a. The permittee notifies the Director of EPD in writing of the proposed transfer at least thirty (30) days in advance of the proposed transfer;
- b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) is submitted to the Director at least thirty (30) days in advance of the proposed transfer; and
- c. The Director, within thirty (30) days, does not notify the current permittee and the new permittee of EPD's intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

3. Availability of Reports

Except for data deemed to be confidential under O.C.G.A. § 12-5-26 or by the Regional Administrator of the EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at an office of EPD. Effluent data, permit applications, permittee's names and addresses, and permits shall not be considered confidential.

4. Permit Modification

This permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or
- d. To comply with any applicable effluent limitation issued pursuant to the order of the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et.al. v. Russell E. Train, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:
 1. is different in conditions or more stringent than any effluent limitation in the permit; or
 2. controls any pollutant not limited in the permit.

5. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established pursuant to Section 307(a) of the Federal Clean Water Act for toxic pollutants, which are present in the discharge within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Federal Clean Water Act.

8. Water Quality Standards

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Expiration of Permit

The permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by EPD at least 180 days prior to the expiration date.

11. Contested Hearings

Any person who is aggrieved or adversely affected by an action of the Director of EPD shall petition the Director for a hearing within thirty (30) days of notice of such action.

12. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

13. Best Management Practices

The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage, in-plant transfer, process and material handling, loading and unloading operations, plant site runoff, and sludge and waste disposal.

14. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

15. Duty to Provide Information

- a. The permittee shall furnish to the EPD Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish upon request copies of records required to be kept by this permit.

- b. When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts and information.

16. Duty to Comply

- a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) and is grounds for enforcement action; for permit termination; revocation and reissuance, or modification; or for denial of a permit renewal application. Any instances of noncompliance must be reported to EPD as specified in Part I. D and Part II.A. of this permit.
- b. Penalties for violations of permit conditions. The Federal Clean Water Act and the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this permit, makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine or by imprisonment, or by both. The Georgia Water Quality Control Act (Act) also provides procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director.

17. Upset Provisions

Provisions of 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

PART III

A. Previous Permits

1. All previous State wastewater permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

B. Schedule of Compliance

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:
 - a. The effluent limitations and monitoring specified in Part I A.1., A.2., and A.3 are effective on the effective date of this permit, except as specified below.
 - b. The permittee shall achieve compliance with the limitations specified in Part I A.1.c., A.2.c., and A.3.c. of this permit in accordance with the following schedule:
 - (i) Beginning on the effective date of this permit modification and continuing until December 31, 2025, the permittee shall start monitoring and reporting selenium in accordance with Part I A.1.a., A.2.a. and A.3.a. of this permit.
 - (ii) No later than December 31, 2025, the permittee shall achieve compliance with the selenium limits specified in Part I A.1.b., A.2.b., and A.3.b. of this permit.
 - c. The permittee shall submit a written progress report to EPD on June 30th and December 31st every year describing the status of achieving compliance with Part I. A.1.b., A.2.b. and A.3.b. of this permit. The permittee shall submit the report to the EPD assigned Compliance Office.
2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

C. Special Conditions

1. Process wastewater shall be treated and recycled to the maximum extent practicable, consistent with demonstrated industry standard technology, for use in processing and dust suppression. The permittee shall maintain records onsite to document these actions.
2. When applicable, the permittee shall implement and adhere to industry recognized Best Management Practices (BMPs). Document(s) describing industry recognized BMPs can be found on EPD's website at the following web address: <http://epd.georgia.gov/wastewater-npdes-las-forms>
3. Permittee shall follow the erosion and sediment control measures described in its Surface Mine Land Use Plan in order to ensure that there will be no point source discharge of pollutants from the permittee's mining activities into waters of the state, except as allowed in this permit.

D. Biomonitoring and Toxicity Reduction Requirements

1. The permittee shall comply with effluent standards or prohibitions established by section 307(a) of the Federal Act and with chapter 391-3-6-.03(5)(e) of the State Rules and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life.

If toxicity is suspected in the effluent, EPD may require the permittee to perform any of the following actions:

- a. Acute biomonitoring tests;
 - b. Chronic biomonitoring tests;
 - c. Stream studies;
 - d. Priority pollutant analyses;
 - e. Toxicity reduction evaluations (TRE); or
 - f. Any other appropriate study.
2. EPD will specify the requirements and methodologies for performing any of these tests or studies. Unless other concentrations are specified by EPD, the critical concentration used to determine toxicity in biomonitoring tests will be the effluent instream wastewater concentration (IWC) based on the representative plant flow of the facility and the critical low flow of the receiving stream (7Q10). The endpoints that will be reported are the effluent concentration that is lethal to 50% of the test organisms (LC50) if the test is for acute toxicity, and the no observed effect concentration (NOEC) of effluent if the test is for chronic toxicity.

The permittee must eliminate effluent toxicity and supply EPD with data and evidence to confirm toxicity elimination.



The Georgia Environmental Protection Division proposes to issue an NPDES permit to the applicant identified below. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to waters of the State.

Technical Contact: Whitney (*Whitney.Fenwick@dnr.ga.gov*)
470-607-3078

Draft permit:

<input type="checkbox"/>	First issuance
<input type="checkbox"/>	Reissuance with no or minor modifications from previous permit
<input type="checkbox"/>	Reissuance with substantial modifications from previous permit
<input checked="" type="checkbox"/>	Modification of existing permit
<input checked="" type="checkbox"/>	Requires EPA review
<input type="checkbox"/>	Designated as a major facility

Modification: This is a major modification to reevaluate the cadmium effluent limits for outfalls 001, 002, and 003 based on the change to the Georgia water quality standard for cadmium and to extend the compliance schedule for the selenium effluent limitations for outfalls 001, 002, and 003.

1 FACILITY INFORMATION

1.1. NPDES Permit No.: GA0002135

1.2. Name and Address of Owner/Applicant

Imerys Clays Inc.
618 Kaolin Road
Sandersville, Georgia 31082

1.3. Name and Address of Facility

Imerys Clays Inc. – Deepstep Road Plant
4062 Deepstep Road
Sandersville, Georgia, 31082
(Washington County)

FACT SHEET

1.4. Location and Description of the discharge (as reported by applicant)

Outfall ID	Latitude	Longitude	Receiving Waterbody
001 (5A)	33° 1' 23" N (33.023056)	82° 53' 53" W (-82.898056)	Unnamed tributary to Keg Creek
002 (5C)	33° 2' 7" N (33.035278)	82° 54' 2" W (-82.900556)	Unnamed tributary to Keg Creek
003 (1A)	33° 2' 1" N (33.033611)	82° 53' 8" W (-82.885556)	Unnamed tributary to Keg Creek

1.5. Production Capacity

Not applicable

1.6. SIC Code & Description

1455 Kaolin Mining and Processing

1.7. Description of Industrial Processes

Kaolin mining and processing facilities. Crude kaolin clay is delivered by truck from various mines operating in the surrounding areas. Kaolin clay is blunged and degritted (by gravity settling and screening) before being pumped via pipeline to the Deepstep Road Plant for further processing. Kaolin is classified, dried and a portion is also calcined (at the Sandersville Calcine Plant) to produce a white pigment product primarily for the paper market. Wastewater is generated by several unit operations from the Imerys facilities along with mixed stormwater which is pumped to wastewater systems which are regulated by NPDES wastewater permits. In the wastewater impoundments, clay and other sediment/solids are settled prior to discharge.

1.8. Description of the Wastewater Treatment Facility

Outfall	Operation Description	Treatment Description
001, 002, 003	Process wastewater commingled with stormwater	Flocculation, sedimentation, and neutralization

1.9. Type of Wastewater Discharge

- | | |
|--------------------------------------------------------|----------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> process wastewater | <input checked="" type="checkbox"/> stormwater |
| <input type="checkbox"/> domestic wastewater | <input checked="" type="checkbox"/> combined (process wastewater and stormwater) |
| <input type="checkbox"/> other | |

FACT SHEET

1.10. Characterization of Effluent Discharge as Reported by Applicant

(Form 2C, Section V, Part A only. Please refer to the application for additional analysis)

1.10.1. Outfall No. 001 - Process wastewater commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	2.8	2.3
Biochemical Oxygen Demand,5-day (mg/L)	2.2	Not provided
Total Suspended Solids (mg/L)	38	14
Temperature, Winter (°F)	69.8	69.8
Temperature, Summer (°F)	80.6	80.6
Ammonia (mg/L)	0.25	Not provided
Total Phosphorus (mg/L)	16	8

1.10.2. Outfall No. 002 - Process wastewater commingled with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	9.6	2.5
Biochemical Oxygen Demand,5-day (mg/L)	<2	Not provided
Total Suspended Solids (mg/L)	28.5	10.4
Temperature, Winter (°F)	69.8	69.8
Temperature, Summer (°F)	80.6	80.6
Ammonia (mg/L)	0.3	Not provided
Total Phosphorus (mg/L)	24	9.1

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1.1.a Outfall No. 003: Process wastewater mixed with stormwater

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	1.2	0.1
Biochemical Oxygen Demand, _{5-day} (mg/L)	<2.0	N/A
Total Suspended Solids (mg/L)	44	16.3
Temperature, Winter (°F)	70	N/A
Temperature, Summer (°F)	81	N/A
Ammonia (mg/L)	0.112	0.053
Total Phosphorus (mg/L)	0.5	0.1

2 APPLICABLE REGULATIONS

2.1 State Regulations

Chapter 391-3-6 of the Georgia Rules and Regulations for Water Quality Control

2.2 Federal Regulations

Source	Activity	Applicable Regulation
Industrial (Non POTW)	Non-Process Water Discharges	40 CFR 122
		40 CFR 125
		40 CFR 127
		40 CFR 136
	Process Water Discharges	40 CFR 122
		40 CFR 125
		40 CFR 127
		40 CFR 136
		40 CFR 415

2.3 Industrial Effluent Limit Guideline(s)

40 CFR 436 – Subpart AG – Kaolin Subcategory [Reserved]

3 WATER QUALITY STANDARDS & RECEIVING WATERBODY INFORMATION

3.1 Ambient Information

Outfall ID	7Q10 (cfs)	1Q10 (cfs)	Hardness (mg/L as CaCO ₃)	Annual Average Flow (cfs)	Upstream Total Suspended Solids (mg/L)
001	0.07	0.06	Data unavailable ¹	0.54	Data unavailable ²
002	0.12	0.11	Data unavailable ¹	0.93	Data unavailable ²
003	0	0	Data unavailable ¹	Data unavailable ³	Data unavailable ²

¹ For the Reasonable Potential Analysis calculations, EPD used 29 mg/l in accordance with EPD Memo *Hardness in Georgia Waterbodies* (2021).

² For the Reasonable Potential Analysis calculations, EPD used 10 mg/l as a conservative value.

³ For the Reasonable Potential Analysis calculations, EPD used 0 cfs as a conservative value.

3.2 Wasteload Allocation Date

June 13, 2017

4 PERMIT CONDITIONS AND EFFLUENT LIMITATIONS

4.1 Nonconventional Pollutants

Pollutants of Concern	Outfall ID	Basis
Cadmium	001	<p><u>WQBEL</u></p> <p>This parameter was evaluated in accordance with the procedures provided in 391-3-6.06 of the Georgia Rules and Regulations for Water Quality Control and its instream concentration was found to be less than the acute and chronic instream standards and therefore there is no reasonable potential to cause or contribute to a violation of the instream water quality standard.</p> <p>Since the previous permit issuance, the Georgia water quality standard for cadmium has changed from:</p> <p><i>Acute criteria = (e (1.0166[ln(hardness)] - 3.924))(1.136672-[(ln hardness)(0.041838)] μg/L</i></p> <p><i>Chronic criteria = (e (0.7409[ln(hardness)] - 4.719))(1.101672-[(ln hardness)(0.041838)] μg/L</i></p> <p>to:</p> <p><i>Acute criteria = (e (0.9789[ln(hardness)] - 3.866))(1.136672-[(ln hardness)(0.041838)] μg/L</i></p> <p><i>Chronic criteria = (e (0.7977[ln(hardness)] - 3.909))(1.101672-[(ln hardness)(0.041838)] μg/L</i></p> <p>Refer to <i>Appendix A</i> of the Fact Sheet for reasonable potential evaluations. Monitoring only has been retained in the permit.</p>
		<p><u>TBEL</u></p> <p>There is no applicable federal technology based effluent limit.</p>
Cadmium	002	<p><u>WQBEL</u></p> <p>This parameter was evaluated in accordance with the procedures provided in 391-3-6.06 of the Georgia Rules and Regulations for Water Quality Control and its instream concentration was found to be less than the acute and chronic instream standards and therefore there is no reasonable potential to cause or contribute to a violation of the instream water quality standard.</p> <p>Since the previous permit issuance, the Georgia water quality standard for cadmium has changed from:</p> <p><i>Acute criteria = (e (1.0166[ln(hardness)] - 3.924))(1.136672-[(ln hardness)(0.041838)] μg/L</i></p> <p><i>Chronic criteria = (e (0.7409[ln(hardness)] - 4.719))(1.101672-[(ln hardness)(0.041838)] μg/L</i></p>

FACT SHEET

		<p>to:</p> $\text{Acute criteria} = (e^{(0.9789[\ln(\text{hardness})] - 3.866)})(1.136672 - [(\ln \text{hardness})(0.041838)]) \mu\text{g/L}$ $\text{Chronic criteria} = (e^{(0.7977[\ln(\text{hardness})] - 3.909)})(1.101672 - [(\ln \text{hardness})(0.041838)]) \mu\text{g/L}$ <p>Refer to <i>Appendix A</i> of the Fact Sheet for reasonable potential evaluations. Monitoring only has been retained in the permit.</p>
		<p><u>TBEL</u></p> <p>There is no applicable federal technology based effluent limit.</p>
Cadmium	003	<p><u>WQBEL</u></p> <p>This parameter was evaluated in accordance with the procedures provided in 391-3-6.06 of the Georgia Rules and Regulations for Water Quality Control and its instream concentration was found to be less than the acute and chronic instream standards and therefore there is no reasonable potential to cause or contribute to a violation of the instream water quality standard.</p> <p>Since the previous permit issuance, the Georgia water quality standard for cadmium has changed from:</p> $\text{Acute criteria} = (e^{(1.0166[\ln(\text{hardness})] - 3.924)}) (1.136672 - [(\ln \text{hardness})(0.041838)]) \mu\text{g/L}$ $\text{Chronic criteria} = (e^{(0.7409[\ln(\text{hardness})] - 4.719)}) (1.101672 - [(\ln \text{hardness})(0.041838)]) \mu\text{g/L}$ <p>to:</p> $\text{Acute criteria} = (e^{(0.9789[\ln(\text{hardness})] - 3.866)})(1.136672 - [(\ln \text{hardness})(0.041838)]) \mu\text{g/L}$ $\text{Chronic criteria} = (e^{(0.7977[\ln(\text{hardness})] - 3.909)})(1.101672 - [(\ln \text{hardness})(0.041838)]) \mu\text{g/L}$ <p>Refer to <i>Appendix A</i> of the Fact Sheet for reasonable potential evaluations. Monitoring only has been retained in the permit.</p>
		<p><u>TBEL</u></p> <p>There is no applicable federal technology based effluent limit.</p>

4.2 Calculations for Water Quality Based Effluent Limits

4.2.1 Metals

See the calculations for applicable metals in *Appendix A* of Fact Sheet

4.3 Anti-Backsliding

The applicant has requested that the effluent limitations for total cadmium for outfall 001, 002, and 003 be reevaluated due to the change to the Georgia water quality standard for cadmium. Clean Water Act (CWA) section 402(o)(1) allows relaxation of WQBELs and effluent limitations based on state standards if the relaxation is consistent with the provisions of CWA section 303(d)(4) or if one of the exceptions in CWA section 402(o)(2) is met. CWA section 303(d)(4) paragraph A refers to relaxation of WQBELs for nonattainment waters and allows the establishment of a less stringent effluent limitation when the receiving water has been identified as not meeting applicable water quality standards. The CWA requires that the existing effluent limitation must have been based on a total maximum daily load (TMDL) or other wasteload allocation (WLA) and protection of water quality standards will be ensured. EPD has evaluated the data provided on the permit application and has determined that there is no reasonable potential for the effluent from outfalls 001, 002 or 003 to cause or contribute to a violation of the instream water quality standard for cadmium (see calculations in *Appendix A* of this fact sheet).

Additionally, the applicant has requested additional time to comply with the effluent limitations for total selenium at outfalls 001, 002, and 003. In accordance with 391-3-6-.06(12) of the Rules and Regulations of the State of Georgia, “The Director may revise or modify the schedule of compliance set forth in an issued permit if the permittee requests such modification or revision in writing and such modification or revision will not cause an interim date in the compliance schedule to be extended more than one hundred twenty (120) days or affect the final date in the compliance schedule. The Director may grant requests in accordance with this subparagraph if he determines after documented showing by the permittee that good and valid cause (including Acts of God, strikes, floods, material shortages or other events over which the permittee has little or no control) exists for such revision.” EPD reviewed the documentation provided and concurs that the permittee has good and valid cause for needing additional time to comply with the selenium effluent limitations and a schedule extension until December 31, 2025 has been included in the permit.

5 REPORTING

The facility has been assigned to the following EPD office for reporting, compliance and enforcement.

Georgia Environmental Protection Division
Watershed Compliance Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

5.1 E-Reporting

The permittee is required to electronically submit documents in accordance with 40 CFR Part 127.

6 REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

Not applicable

7 PERMIT EXPIRATION

The permit will expire five years from the effective date.

8 PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

9.1 Comment Period

The Georgia Environmental Protection Division (EPD) proposes to issue a permit to this applicant subject to the effluent limitations and special conditions outlined above. These determinations are tentative.

Georgia Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

The permit application, draft permit, and other information are available for review at 2 Martin Luther King Jr. Drive, Suite 1152 East, Atlanta, Georgia 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday and on EPD's website accessible through the publicly available Georgia EPD Online System (GEOS) at: <https://geos.epd.georgia.gov/GA/GEOS/Public/GovEnt/Shared/Pages/Main/Login.aspx>. For additional information, you can contact 404-463-1511.

9.2 Public Comments

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address above, or via e-mail at EPDcomments@dnr.ga.gov within 30 days of the initiation of the public comment period. All comments received prior to that date will be considered in the formulation of final determinations regarding the application. The permit number should be placed on the top of the first page of comments to ensure that your comments will be forwarded to the appropriate staff.

9.3 Public Hearing

Any applicant, affected state or interstate agency, the Regional Administrator of the U.S. Environmental Protection Agency (EPA) or any other interested agency, person or group of persons may request a public hearing with respect to an NPDES permit application if such request is filed within thirty (30) days following the date of the public notice for such application. Such request must indicate the interest of the party filing the request, the reasons

why a hearing is requested, and those specific portions of the application or other NPDES form or information to be considered at the public hearing.

The Director shall hold a hearing if he determines that there is sufficient public interest in holding such a hearing. If a public hearing is held, notice of same shall be provided at least thirty (30) days in advance of the hearing date.

In the event that a public hearing is held, both oral and written comments will be accepted; however, for the accuracy of the record, written comments are encouraged. The Director or a designee reserves the right to fix reasonable limits on the time allowed for oral statements and such other procedural requirements, as deemed appropriate.

Following a public hearing, the Director, unless it is decided to deny the permit, may make such modifications in the terms and conditions of the proposed permit as may be appropriate and shall issue the permit.

If no public hearing is held, and, after review of the written comments received, the Director determines that a permit should be issued and that the determinations as set forth in the proposed permit are substantially unchanged, the permit will be issued and will become final in the absence of a request for a contested hearing. Notice of issuance or denial will be made available to all interested persons and those persons that submitted written comments to the Director on the proposed permit.

If no public hearing is held, but the Director determines, after a review of the written comments received, that a permit should be issued but that substantial changes in the proposed permit are warranted, public notice of the revised determinations will be given and written comments accepted in the same manner as the initial notice of application was given and written comments accepted pursuant to EPD Rules, Water Quality Control, subparagraph 391-3-6-.06(7)(b). The Director shall provide an opportunity for public hearing on the revised determinations. Such opportunity for public hearing and the issuance or denial of a permit thereafter shall be in accordance with the procedures as are set forth above.

9.4 Final Determination

At the time that any final permit decision is made, the Director shall issue a response to comments. The issued permit and responses to comments can be found at the following address:

<http://epd.georgia.gov/watershed-protection-branch-permit-and-public-comments-clearinghouse-0>

9.5 Contested Hearings

Any person who is aggrieved or adversely affected by the issuance or denial of a permit by the Director of EPD may petition the Director for a hearing if such petition is filed in the office of the Director within thirty (30) days from the date of notice of such permit issuance or denial. Such hearing shall be held in accordance with the EPD Rules, Water Quality Control, subparagraph 391-3-6-.01.

Petitions for a contested hearing must include the following:

1. The name and address of the petitioner;
2. The grounds under which petitioner alleges to be aggrieved or adversely affected by the issuance or denial of a permit;
3. The reason or reasons why petitioner takes issue with the action of the Director;
4. All other matters asserted by petitioner which are relevant to the action in question.

APPENDIX A

Reasonable Potential Analysis

FACT SHEET

FACT SHEET

Appendix A

Imerys Deepstep Road Plant
NPDES Permit No. GA0002135
Outfall 001

Stream Data (upstream of the discharge):

TSS:	10	mg/L
7Q10:	0.070	ft ³ /s
1Q10:	0.060	ft ³ /s
Mean flow:	0.54	ft ³ /s

Effluent Data:

Average Effluent TSS:	14.0	mg/L
Flow:	8,000,000	gal/day
Flow:	12.38	ft ³ /s

Stream data (downstream of the discharge):

Hardness:	29.0	mg/L
TSS (at 7Q10):	13.98	mg/L
Dilution factor (at mean annual flow):	1.0	
Dilution factor (at 7Q10):	1.01	
Dilution factor (at 1Q10):	1.00	

Receiving Water Type:	Freshwater
Permit Type:	Industrial

65k Coastal Plain Red Uplands

IWC (at mean annual flow):	96
IWC (at 7Q10):	99
IWC (at 1Q10):	100

Acute Water Quality Criteria (WQC_{Acute}) - Metals:

Metal	K _{PO}	α	f _D	Number of samples	Maximum effluent C _T (μg/L)	Instream C _D (μg/L)	WQC _{Acute} (μg/L)	WQC _{Acute} (adjusted) ⁽¹⁾ (μg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00			0.0	340	170	no
Cadmium	4.00.E+06	-1.131	0.261	24	1.1	0.3	0.56	1	no
Chromium III	3.36.E+06	-0.930	0.00			0.0	207	103	no
Chromium VI	3.36.E+06	-0.930	0.00			0.0	16	8	no
Copper	1.04.E+06	-0.744	0.33	24	16.0	5.23	4.2	4	yes
Lead	2.80.E+06	-0.800	0.00			0.0	16	8	no
Mercury	---	---	---			0.0	1.4	1	no
Nickel	4.90.E+05	-0.572	0.00			0.0	164	82	no
Selenium	---	---	---			0.0	N/A	N/A	no
Zinc	1.25.E+06	-0.704	0.27	11	38.0	10.14	41	41	no

NOTES:

⁽¹⁾ The "adjusted" WQC is the WQC applicable to a pollutant based on the number of samples used in the analysis. In accordance with Georgia EPD's *NPDES Reasonable Potential Procedures*, January 2003, when less than 10 samples are used, the effluent concentration shall be compared to 50% of the WQC.

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{instream} (mg/L)^{(1+\alpha)} \times 10^{-6}}$$

$$Instream C_D = \frac{Effluent C_T (mg/L) \times f_D}{DF} \quad mg/L$$

$$Dilution Factor = \frac{Q_{Stream} (ft^3/sec) + Q_{Effluent} (ft^3/sec)}{Q_{Effluent} (ft^3/sec)}$$

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Appendix A

Imerys Deepstep Road Plant

NPDES Permit No. GA0002135

Outfall 001

Chronic Water Quality Criteria (WQC_{Chronic}) - Metals:

Metal	K _{PO}	α	f _D	Number of samples	Average effluent C _T (µg/L)	Instream C _D (µg/L)	WQC _{Chronic} (µg/L)	WQC _{Chronic} (adjusted) ⁽¹⁾ (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00			0.0	150	75	no
Cadmium	4.00.E+06	-1.131	0.261	24	0.1	0.0	0.28	0	no
Chromium III	3.36.E+06	-0.930	0.00			0.0	27	13	no
Chromium VI	3.36.E+06	-0.930	0.00			0.0	11	6	no
Copper	1.04.E+06	-0.744	0.33	24	12.0	3.92	3.1	3	yes
Lead	2.80.E+06	-0.800	0.00			0.0	0.6	0	no
Mercury	---	---	---			0.0	0.012	0	no
Nickel	4.90.E+05	-0.572	0.00			0.0	18.2	9	no
Selenium	---	---	---	24	6.0	6.0	5.0	5	yes
Zinc	1.25.E+06	-0.704	0.27	11	14.0	3.73	41	41	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{Instream} (mg/L)^{(1+\alpha)} \times 10^{-6}}$$

$$Instream C_D = \frac{Effluent C_T (mg/L) \times f_D}{DF} \quad mg/L$$

Total Recoverable Metal Effluent Limit

Metal	C _S (µg/L)	Chronic C _T (µg/L)	Chronic C _T (lb/day)	Acute C _T (µg/L)	Acute C _T (lb/day)
Arsenic	0.0	N/A	N/A	N/A	N/A
Cadmium	0.0	N/A	N/A	N/A	N/A
Chromium III	0.0	N/A	N/A	N/A	N/A
Chromium VI	0.0	N/A	N/A	N/A	N/A
Copper	0.0	9.52	0.637	12.81	0.856
Lead	0.0	N/A	N/A	N/A	N/A
Mercury	0.0	N/A	N/A	N/A	N/A
Nickel	0.0	N/A	N/A	N/A	N/A
Selenium	0.0	5.03	0.336	N/A	N/A
Zinc	0.0	N/A	N/A	N/A	N/A

NOTES:

- Chronic and acute total recoverable metal effluent concentration (C_T) from EPA 823-B-96-007, June 1996, page 33:

$$Chronic C_T = \frac{\frac{WQC_{Chronic}}{f_D} \times (Q_E + 7Q_{10}) - (7Q_{10} \times C_S)}{Q_E}$$

$$Acute C_T = \frac{\frac{WQC_{Acute}}{f_D} \times (Q_E + 1Q_{10}) - (1Q_{10} \times C_S)}{Q_E}$$

⁽¹⁾ The "adjusted" WQC is the WQC applicable to a pollutant based on the number of samples used in the analysis. In accordance with Georgia EPD's *NPDES Reasonable Potential Procedures*, January 2003, when less than 10 samples are used, the effluent concentration shall be compared to 50% of the WQC.

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Appendix A

Imerys Deepstep Road Plant
NPDES Permit No. GA0002135
Outfall 002

Stream Data (upstream of the discharge):

TSS:	10	mg/L
7Q10:	0.120	ft ³ /s
1Q10:	0.110	ft ³ /s
Mean flow:	0.93	ft ³ /s

Effluent Data:

Average Effluent TSS:	10.4	mg/L
Flow:	9,600,000	gal/day
Flow:	14.85	ft ³ /s

Stream data (downstream of the discharge):

Hardness:	29.0	mg/L
TSS (at 7Q10):	10.40	mg/L
Dilution factor (at mean annual flow):	1.1	
Dilution factor (at 7Q10):	1.01	
Dilution factor (at 1Q10):	1.01	

Receiving Water Type:	Freshwater
Permit Type:	Industrial

65k Coastal Plain Red Uplands

IWC (at mean annual flow):	94
IWC (at 7Q10):	99
IWC (at 1Q10):	99

Acute Water Quality Criteria (WQC_{Acute}) - Metals:

Metal	K _{PO}	α	f _D	Number of samples	Maximum effluent C _T (μg/L)	Instream C _D (μg/L)	WQC _{Acute} (μg/L)	WQC _{Acute} (adjusted) ⁽¹⁾ (μg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00			0.0	340	170	no
Cadmium	4.00.E+06	-1.131	0.253	24	0.8	0.2	0.56	1	no
Chromium III	3.36.E+06	-0.930	0.00			0.0	207	103	no
Chromium VI	3.36.E+06	-0.930	0.00			0.0	16	8	no
Copper	1.04.E+06	-0.744	0.35	24	21.0	7.20	4.2	4	yes
Lead	2.80.E+06	-0.800	0.00			0.0	16	8	no
Mercury	---	---	---			0.0	1.4	1	no
Nickel	4.90.E+05	-0.572	0.00			0.0	164	82	no
Selenium	---	---	---			0.0	N/A	N/A	no
Zinc	1.25.E+06	-0.704	0.29	11	75.0	21.26	41	41	no

NOTES:

⁽¹⁾ The "adjusted" WQC is the WQC applicable to a pollutant based on the number of samples used in the analysis. In accordance with Georgia EPD's *NPDES Reasonable Potential Procedures*, January 2003, when less than 10 samples are used, the effluent concentration shall be compared to 50% of the WQC.

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{instream} (mg/L)^{(1+\alpha)} \times 10^{-6}}$$

$$Instream C_D = \frac{Effluent C_T (mg/L) \times f_D}{DF} \quad mg/L$$

$$Dilution Factor = \frac{Q_{Stream} (ft^3/sec) + Q_{Effluent} (ft^3/sec)}{Q_{Effluent} (ft^3/sec)}$$

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Appendix A

Imerys Deepstep Road Plant NPDES Permit No. GA0002135 Outfall 002

Chronic Water Quality Criteria (WQC_{Chronic}) - Metals:

Metal	K _{PO}	α	f _D	Number of samples	Average effluent C _T (µg/L)	Instream C _D (µg/L)	WQC _{Chronic} (µg/L)	WQC _{Chronic} (adjusted) ⁽¹⁾ (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00			0.0	150	75	no
Cadmium	4.00.E+06	-1.131	0.253	24	0.6	0.1	0.28	0	no
Chromium III	3.36.E+06	-0.930	0.00			0.0	27	13	no
Chromium VI	3.36.E+06	-0.930	0.00			0.0	11	6	no
Copper	1.04.E+06	-0.744	0.35	24	16.0	5.48	3.1	3	yes
Lead	2.80.E+06	-0.800	0.00			0.0	0.6	0	no
Mercury	---	---	---			0.0	0.012	0	no
Nickel	4.90.E+05	-0.572	0.00			0.0	18.2	9	no
Selenium	---	---	---	24	11.0	10.9	5.0	5	yes
Zinc	1.25.E+06	-0.704	0.29	11	30.0	8.50	41	41	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{Instream} (mg/L)^{(1+\alpha)} \times 10^{-6}}$$

$$Instream C_D = \frac{Effluent C_T (mg/L) \times f_D}{DF} \quad mg/L$$

Total Recoverable Metal Effluent Limit

Metal	C _S (µg/L)	Chronic C _T (µg/L)	Chronic C _T (lb/day)	Acute C _T (µg/L)	Acute C _T (lb/day)
Arsenic	0.0	N/A	N/A	N/A	N/A
Cadmium	0.0	N/A	N/A	N/A	N/A
Chromium III	0.0	N/A	N/A	N/A	N/A
Chromium VI	0.0	N/A	N/A	N/A	N/A
Copper	0.0	9.08	0.728	12.21	0.980
Lead	0.0	N/A	N/A	N/A	N/A
Mercury	0.0	N/A	N/A	N/A	N/A
Nickel	0.0	N/A	N/A	N/A	N/A
Selenium	0.0	5.04	0.404	N/A	N/A
Zinc	0.0	N/A	N/A	N/A	N/A

NOTES:

- Chronic and acute total recoverable metal effluent concentration (C_T) from EPA 823-B-96-007, June 1996, page 33:

$$Chronic C_T = \frac{\frac{WQC_{Chronic}}{f_D} \times (Q_E + 7Q_{10}) - (7Q_{10} \times C_S)}{Q_E}$$

$$Acute C_T = \frac{\frac{WQC_{Acute}}{f_D} \times (Q_E + 1Q_{10}) - (1Q_{10} \times C_S)}{Q_E}$$

⁽¹⁾ The "adjusted" WQC is the WQC applicable to a pollutant based on the number of samples used in the analysis. In accordance with Georgia EPD's *NPDES Reasonable Potential Procedures*, January 2003, when less than 10 samples are used, the effluent concentration shall be compared to 50% of the WQC.

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FACT SHEET Appendix A Imerys Deepstep Road Plant NPDES Permit No. GA0002135 Outfall 003

Stream Data (upstream of the discharge):

TSS:	10	mg/L
7Q10:	0.000	ft ³ /s
1Q10:	0.000	ft ³ /s
Mean flow:	0.00	ft ³ /s

Effluent Data:

Average Effluent TSS:	16.3	mg/L
Flow:	1,200,000	gal/day
Flow:	1.86	ft ³ /s

Stream data (downstream of the discharge):

Hardness:	29.0	mg/L
TSS (at 7Q10):	16.30	mg/L
Dilution factor (at mean annual flow):	1.0	
Dilution factor (at 7Q10):	1.00	
Dilution factor (at 1Q10):	1.00	

Receiving Water Type:	Freshwater
Permit Type:	Industrial

65k Coastal Plain Red Uplands	
IWC (at mean annual flow):	100
IWC (at 7Q10):	100
IWC (at 1Q10):	100

Acute Water Quality Criteria (WQC_{Acute}) - Metals:

Metal	K _{PO}	α	f _D	Number of samples	Maximum effluent C _T (μg/L)	Instream C _D (μg/L)	WQC _{Acute} (μg/L)	WQC _{Acute} (adjusted) ⁽¹⁾ (μg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00			0.0	340	170	no
Cadmium	4.00.E+06	-1.131	0.265	10	0.8	0.2	0.56	1	no
Chromium III	3.36.E+06	-0.930	0.00			0.0	207	103	no
Chromium VI	3.36.E+06	-0.930	0.00			0.0	16	8	no
Copper	1.04.E+06	-0.744	0.32	10	18.0	5.76	4.2	4	yes
Lead	2.80.E+06	-0.800	0.00			0.0	16	8	no
Mercury	---	---	---			0.0	1.4	1	no
Nickel	4.90.E+05	-0.572	0.00			0.0	164	82	no
Selenium	---	---	---			0.0	N/A	N/A	no
Zinc	1.25.E+06	-0.704	0.26	10	110.0	28.52	41	41	no

NOTES:

⁽¹⁾ The "adjusted" WQC is the WQC applicable to a pollutant based on the number of samples used in the analysis. In accordance with Georgia EPD's *NPDES Reasonable Potential Procedures*, January 2003, when less than 10 samples are used, the effluent concentration shall be compared to 50% of the WQC.

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{Instream} (mg/L)^{(1+\alpha)} \times 10^{-6}}$$

$$Instream C_D = \frac{Effluent C_T (mg/L) \times f_D}{DF} \quad mg/L$$

$$Dilution Factor = \frac{Q_{Stream} (ft^3/sec) + Q_{Effluent} (ft^3/sec)}{Q_{Effluent} (ft^3/sec)}$$

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Appendix A

Imerys Deepstep Road Plant
NPDES Permit No. GA0002135
Outfall 003

Chronic Water Quality Criteria (WQC_{Chronic}) - Metals:

Metal	K _{PO}	α	f _D	Number of samples	Average effluent C _T (µg/L)	Instream C _D (µg/L)	WQC _{Chronic} (µg/L)	WQC _{Chronic} (adjusted) ⁽¹⁾ (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00			0.0	150	75	no
Cadmium	4.00.E+06	-1.131	0.265	10	0.3	0.1	0.28	0	no
Chromium III	3.36.E+06	-0.930	0.00			0.0	27	13	no
Chromium VI	3.36.E+06	-0.930	0.00			0.0	11	6	no
Copper	1.04.E+06	-0.744	0.32	10	3.0	0.96	3.1	3	no
Lead	2.80.E+06	-0.800	0.00			0.0	0.6	0	no
Mercury	---	---	---			0.0	0.012	0	no
Nickel	4.90.E+05	-0.572	0.00			0.0	18.2	9	no
Selenium	---	---	---	10	7.0	7.0	5.0	5	yes
Zinc	1.25.E+06	-0.704	0.26	10	17.0	4.41	41	41	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{Instream} (mg/L)^{(1+\alpha)} \times 10^{-6}}$$

$$Instream C_D = \frac{Effluent C_T (mg/L) \times f_D}{DF} \quad mg/L$$

Total Recoverable Metal Effluent Limit

Metal	C _S (µg/L)	Chronic C _T (µg/L)	Chronic C _T (lb/day)	Acute C _T (µg/L)	Acute C _T (lb/day)
Arsenic	0.0	N/A	N/A	N/A	N/A
Cadmium	0.0	N/A	N/A	N/A	N/A
Chromium III	0.0	N/A	N/A	N/A	N/A
Chromium VI	0.0	N/A	N/A	N/A	N/A
Copper	0.0	N/A	N/A	13.09	0.131
Lead	0.0	N/A	N/A	N/A	N/A
Mercury	0.0	N/A	N/A	N/A	N/A
Nickel	0.0	N/A	N/A	N/A	N/A
Selenium	0.0	5.00	0.050	N/A	N/A
Zinc	0.0	N/A	N/A	N/A	N/A

NOTES:

- Chronic and acute total recoverable metal effluent concentration (C_T) from EPA 823-B-96-007, June 1996, page 33:

$$Chronic C_T = \frac{\frac{WQC_{Chronic} \times (Q_E + 7Q_{10}) - (7Q_{10} \times C_S)}{f_D}}{Q_E}$$

$$Acute C_T = \frac{\frac{WQC_{Acute} \times (Q_E + 1Q_{10}) - (1Q_{10} \times C_S)}{f_D}}{Q_E}$$

⁽¹⁾ The "adjusted" WQC is the WQC applicable to a pollutant based on the number of samples used in the analysis. In accordance with Georgia EPD's *NPDES Reasonable Potential Procedures*, January 2003, when less than 10 samples are used, the effluent concentration shall be compared to 50% of the WQC.

APPENDIX B

Selenium Compliance Schedule Request

FACT SHEET



October 11, 2021

Ms. Whitney Fenwick
Industrial Permitting Unit
2 Martin Luther King Jr. Drive Suite 1152E
Atlanta, GA 30334
Phone: (404) 656-6159

Subject: Selenium compliance schedule extension request for Imerys NPDES GA0002135
(Deepstep Road Plant), Outfalls 001 and 002

Dear Ms. Fenwick,

Imerys Clays, Inc. (Imerys) has entered into an Asset Purchase Agreement with Thiele Kaolin Company (TKC) to divest a portion of Imerys Clays Inc. (Imerys) assets, including the Deepstep Road Plant (DRP) processing facility, as detailed in the permit transfer request letter submitted to your office on October 1, 2021. DRP has three NPDES-permitted outfalls authorized to discharge treated process wastewater under GA0002135 (Permit). In the permit transfer request materials, Imerys and TKC proposed that the transfer of the Permit be executed as part of the standing permit modification request. While Imerys expects the sale of the DRP facility to TKC to successfully close as planned, this letter is to request a compliance schedule extension for selenium for Outfalls 001 and 002 in the case that the sale of this asset is not completed.

Selenium data collected by Imerys from Outfalls 001 and 002 show that while the selenium concentrations at these outfalls is not egregious, the outfalls will not be able to meet the upcoming effluent limitations (see enclosed data plots). Under the current Permit, the effluent limits for selenium become effective on January 1, 2022. As previously discussed with EPD, selenium is a challenging effluent quality parameter from a treatment perspective and the compliance period established in the current Permit did not account for those challenges. The following sections detail Imerys' work to date and the plan moving forward for achieving compliance with future selenium effluent limits.

618 Kaolin Road, Sandersville, Georgia 31082

Tel.: 478.553.5830 www.imerys.com

IMERYS is a business name of IMERYS Pigments, Inc., IMERYS Kaolin, Inc. and IMERYS Marble, Inc.
Registered in the USA. Registered Office: 100 Mansell Court East, Suite 300, Roswell, GA 30076.



- Two major efforts were undertaken in 2018 and 2019 to evaluate various alternatives to achieve compliance - EPD was briefed on those effort
- During 2020 and 2021, the CCPA group has continued to work together on selenium despite a shift in effort back to the company-specific level

Commission, Design, and Build Pilot – (3Q19 to 4Q20)

- Contracting with Vendor A began in approximately the third quarter of 2019
- An on-site continuous flow, skid-mounted pilot system was commissioned and designed such that the technology could be tested on multiple wastestreams at the DRP facility
- Due to COVID, fabrication of the skid-mounted pilot unit was delayed to the point that plans for that system were put on hold and the study was redesigned to be conducted at the Imerys pilot plant in Sandersville
- Equipment for the Imerys pilot plant study was fabricated in late 2020
- The redesigned study required hauling water from the DRP plant to the Imerys pilot plant for testing as a single volume flow through trial

Pilot Study – (4Q20 to 2Q21)

- The first pilot trial was conducted on magnet wash water in December 2020
 - 65% reduction in selenium concentration
 - 98% reduction in cadmium concentration
 - 100% reduction in copper concentration
- The second pilot trial was conducted on 5C impound water in May 2021 – included three different dosing rates
 - Selenium reduction ranged from 37 to 50%
 - Cadmium and copper were reduced to below the laboratory reporting limits
- Two reports, one for each trial, were developed to present the findings
- The selenium results from the second pilot were encouraging but are currently borderline for meeting the upcoming effluent limitations if the technology were to be applied as an end-of-pipe treatment
- Further, improved management of residual solids is required in order to scale this technology
- Vendor A is continuing bench scale work to address these issues prior to moving forward with additional pilot testing

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Activities to Date

Imerys has worked on the selenium issue at the company level with two different vendors and at the industry level with the China Clay Producers Association beginning over six months before the current Permit became effective on January 1, 2018. The work with vendors is protected by Non-Disclosure Agreements that currently prevent Imerys from sharing details and reports. Summary information is provided below and the timeline is shown on the enclosed Gantt Chart.

Initial Vendor Engagement (2Q17)

- Vendor A was engaged in June 2017 to assist Imerys in addressing selenium via a chemical treatment solution
- Vendor B was also engaged in 2017 for the same purpose

Bench Trials - (2Q17 to current)

- Vendor A was provided the first sample for bench trials in June 2017, immediately upon engagement with Imerys on this matter
- Vendor A has conducted numerous bench scale trials since initial engagement
- The Vendor A bench trials have shown encouraging reductions in not only selenium concentrations but also cadmium and copper (which are also constituents of concern at this outfall)
- Vendor A has produced four interim reports detailing the findings of their work (see Gantt Chart for timing)
- Results from the initial round of bench trials with Vendor B indicated that the technology was successful at reducing selenium concentrations; however, several concerns, including high frequency of regeneration of a large volume of media and the handling of the spent media, led to Imerys discontinuing their efforts with Vendor B

China Clay Producers Association (CCPA) Efforts – (3Q17 to current)

- The CCPA initiated an industry-wide effort to work on selenium in the third quarter of 2017
- CCPA initially engaged EPD in January 2018 to make the agency aware of the challenges selenium presented and voice concerns regarding the length of compliance periods that were being issued in recent and draft permits
- CCPA kept in close communication with EPD as it worked internally to address selenium

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Upcoming Tasks

The tasks Imerys plans to perform to achieve compliance are described below and shown in the enclosed Gantt Chart.

Continue Bench Trials to Further Optimize Technology – (4Q21 to 2Q22)

- Vendor A is continuing to work to optimize the technology for better selenium removal performance
- This work is anticipated to continue until the onsite pilot study is initiated (see below)

Conduct Continuous-flow Onsite Pilot Study – (1Q22 to 4Q22)

- Conduct the onsite, continuous flow pilot study to determine the performance of the technology on the specific sidestreams that are able to be targeted at DRP
- This is a critical step for developing the design parameters to develop a full-scale system

Engage Alternative Vendor - (4Q21 to 4Q22)

- Due to the uncertainty as to whether Vendor A's technology can consistently meet the very low effluent limit concentrations and potentially lower future effluent limits, Imerys plans to engage an alternative vendor to assess another treatment technology in parallel to the ongoing Vendor A effort

Design and Permit Treatment System - (4Q22 to 2Q23)

- Self-explanatory

Bid & Contract Construction – (3Q23 to 4Q23)

- Self-explanatory

Construct Treatment System – (1Q24 to 4Q24)

- Self-explanatory

Build Conveyance from 5A to 5C – (1Q24 to 3Q24)

- This is necessary to consolidate the 5A and 5C discharges

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- Impounds may be operated as a two-stage treatment system depending on selected technology

Start-up & Tune Treatment System, Turn Over 5C & 5A Impounds – (1Q25 to 4Q25)

- Time is required to bring the treatment system online and attain desired operating parameters/conditions
- The hydraulic residence time for 5C impound is almost six months; therefore, significant time is required to “turn over” the impound such that the effect of the treated wastewater is observable at Outfall 002

Achieve Compliance - (end of 4Q25)

- Self-explanatory

Proposed Compliance Schedule Timeline

If ownership of the DRP facility is not transferred to TKC, Imerys intends to implement the plan described above and become compliant with the new selenium effluent limitations by December 31, 2025. Imerys would like to point out to EPD the challenges associated with the COVID-19 pandemic. Labor shortages, supply-chain delays and lapses, and other COVID-related factors have already impacted Imerys operations and our efforts in working towards meeting the future selenium limits. The schedule provided above does not take into account future uncertainties in performing the tasks necessary to implement this plan. Further, we note that this plan relies heavily on outside vendors and contractors who are also affected by the global pandemic and in ways over which Imerys has no control. Given this unique situation, Imerys requests that GA EPD add a contingency period to the compliance schedule extension to account for up to one year of delays associated with the COVID pandemic.

Sincerely,

A handwritten signature in black ink, appearing to read "Grayson J. Upton", is written over a horizontal line.

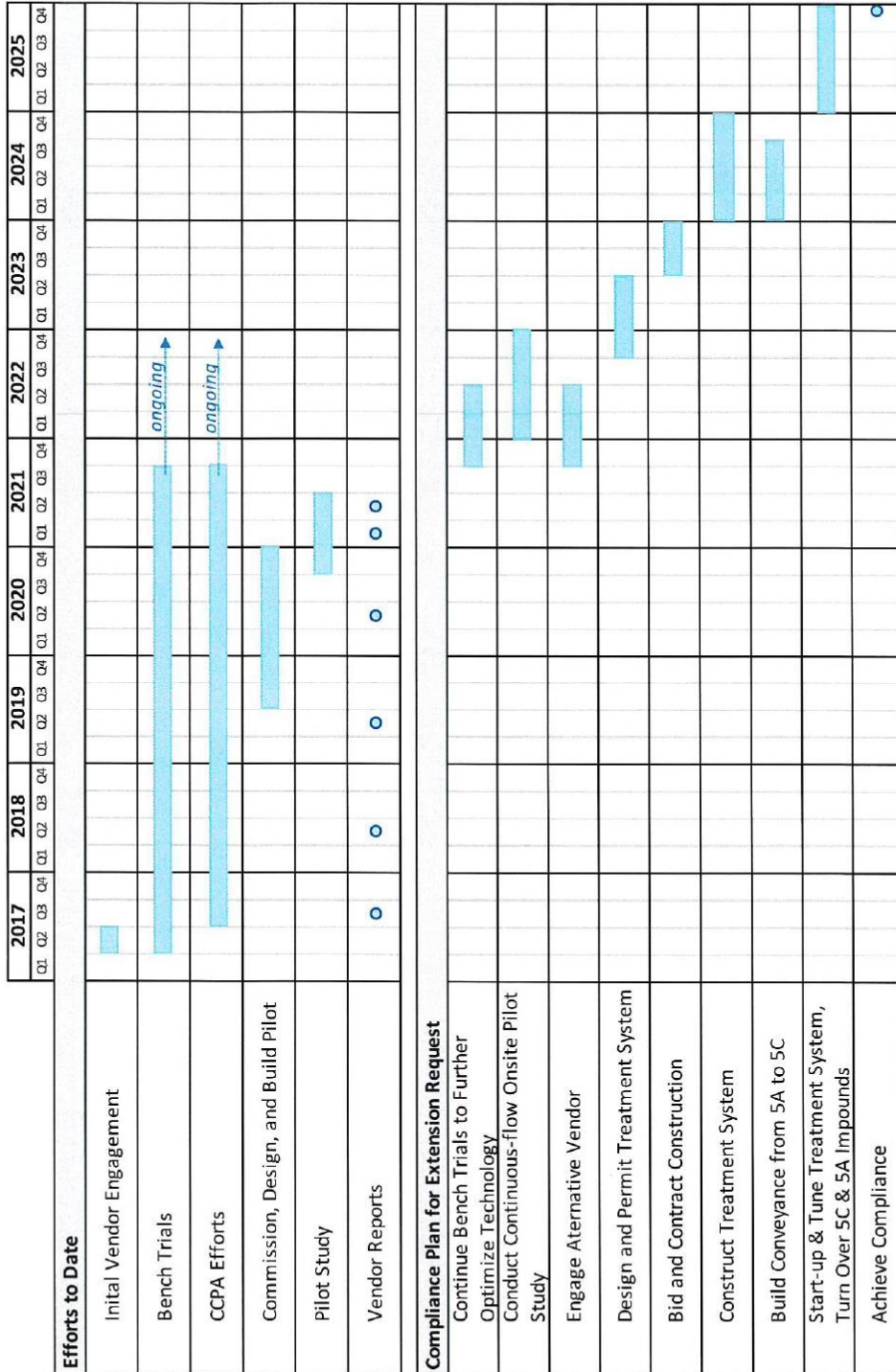
Grayson J. Upton, CMSP
Environmental, Health & Safety Manager
IMERYS Performance Minerals, North America

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November 5, 2021

Mrs. Whitney Fenwick
Georgia Department of Natural Resources
Environmental Protection Division
Water Protection Branch
Suite 1152, East Tower
2 MLK, Jr Dr., S.W.
Atlanta, GA 30334

Dear Mrs. Fenwick,

This letter is to modify our selenium compliance plan to include an additional option for permit GA0002135. IMERYS agrees that the focus of the EPD's work needs to be getting the draft permit with the new selenium compliance schedule to Public Notice by the November 10th cutoff.

IMERYS plans to merge the effluents from current 001, 002, and 003 impounds at the Deepstep Road Plant (DRP) and construct a 10-mile pipeline to a new treatment facility, which will be comprised of a multi-stage impound system that discharges through a new or existing outfall near a larger stream. IMERYS realizes that a new or modified NPDES permit will be required for this implementation.

IMERYS plans to secure a new pipeline right away to the treatment facility, submit for a new or updating discharge permit and complete the construction of the pipeline including re-routing treated effluent from the 001 and 003 impounds to the 002 impound for the purposes of consolidating the wastewater from these two impounds prior to routing to the new treatment facility (this will involve constructing an onsite pipeline and pump station), constructing an approximately 10-mile of new pipeline between 002 and the treatment facility. IMERYS believes that it will take three-years to accomplish the construction of the 10-mile pipeline and other construction activities associated with this project.

IMERYS expects that the new multi-stage treatment facility will significantly enhance the effectiveness of IMERYS' existing Cal-flow systems at the 001 and 002 impounds. By operating impounds 001, 002 and 003 in series and then routing the effluent to

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the new facility, the additional treatment stages can be leveraged to further treat the wastewater. Bench-scale testing is needed to understand the mixing of the waste streams at the new treatment facility. IMERYS is confident that utilizing this type of treatment system with multiple stages of treatment rather than the existing single stage treatment will resolve all compliance issues for these discharges.

Proposed Compliance Schedule Timeline

The timelines presented in the enclosed Gantt chart are believed to be the minimum feasible time needed to implement the tasks while also accounting for the COVID-19 uncertainties and potential delays. In requesting a compliance period for this multi pond system approach such as this, the final dead line must be based on longest timeline of the three years, which is December 31, 2025. Therefore, TKC requests that the compliance period for selenium at Outfalls 001, 002, and 003 be extended to December 31, 2025.

I look forward to continuing to work with you and the EPD team. If you have any questions, please contact me at 478-553-55830.

Sincerely,



Grayson Upton
Environmental, Health, and Safety Manager
IMERYS – US Clays Hub

Attachments: Gantt Chart

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